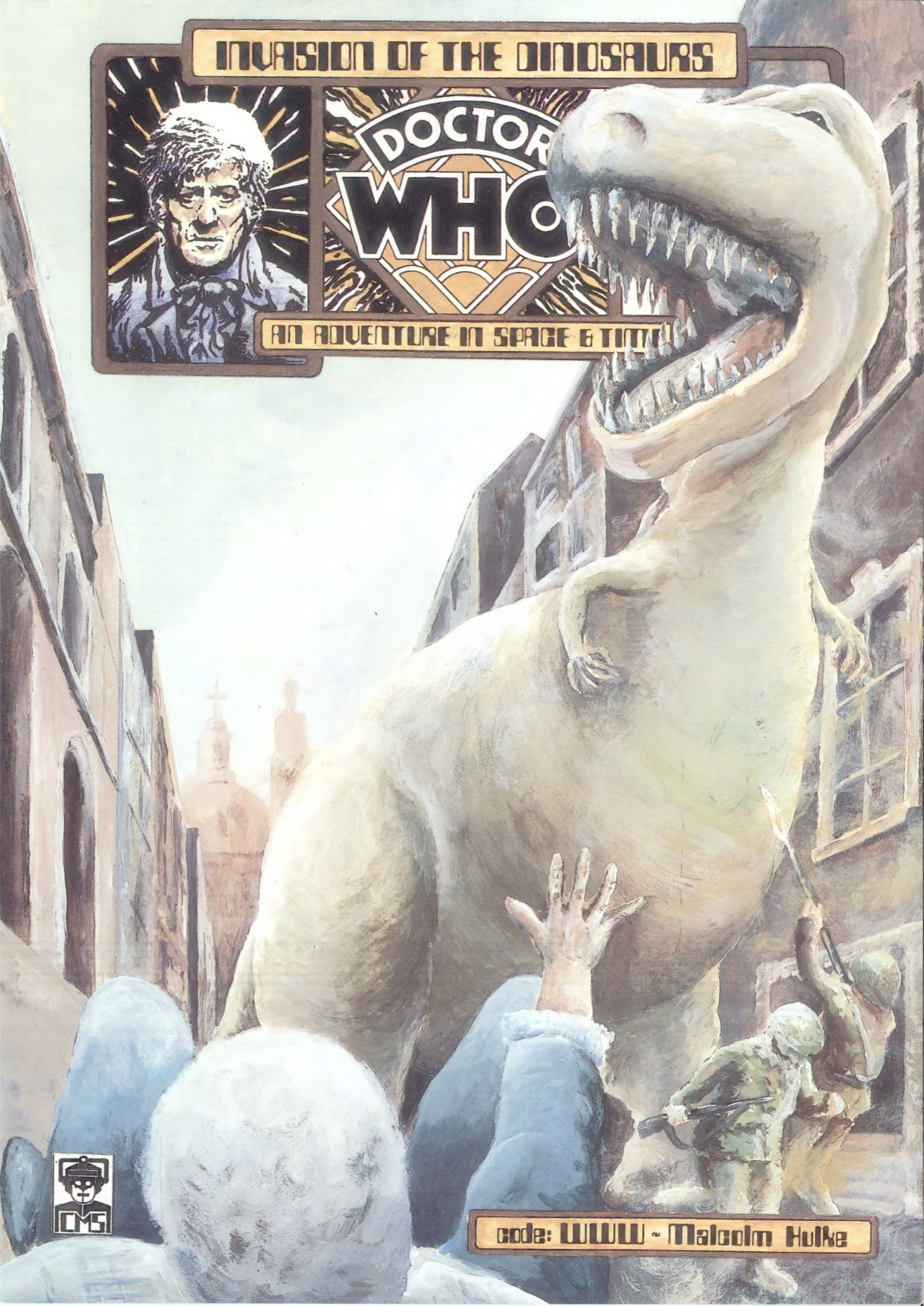
INVASION OF THE DINOSAURS

DOCTOR WHO

AN ADVENTURE IN SPACE & TIME



code: WWW ~ Malcolm Hulke

The TARDIS returns the Doctor and Sarah to central London in the 20th Century. At first the city seems deserted - even the telephones are dead - but then they encounter several looters. To their amazement, they are also attacked by a prehistoric Pterodactyl! They escape in an abandoned van but are caught by the army, who have the city under martial law, and arrested as looters.

Photographs of new prisoners are sent to UNIT's emergency HQ in a deserted school, where Benton recognises those of the Doctor and Sarah. Before they can be bailed out, however, the two friends are taken off in a jeep, headed for a detention centre. Suddenly a Tyrannosaurus Rex appears and attacks. In the confusion, the pair are able to get away and hide in a garage. There they find a peasant from the Middle Ages, who attacks them with a knife before vanishing into thin air. The Brigadier arrives and takes the travellers to his HQ, where he explains that London is being besieged by dinosaurs.

A Steggosaurus is sighted by troops, and the Doctor rushes to the scene. He observes as the creature disappears in a time eddy, like the peasant, and realises that someone wants London cleared of people - that is why the creatures are being brought forward through time.

In a hidden laboratory, two conspirators, Whitaker and Butler, are planning another dinosaur manifestation. Mike Yates arrives and tells them of the Doctor's suspicions. He is ordered to deal with the Time Lord.

The Doctor tries to capture a Steggosaurus using a stun gun he has constructed. However, Yates has sabotaged the weapon with a jamming device, and it fails to work. Suddenly a Tyrannosaurus appears, blocking the Time Lord's escape, but when Yates sees the Doctor is in danger, he removes the jamming device and uses the gun himself to stun the Tyrannosaurus. The creature is taken to a nearby hangar, where the Doctor sets up a machine that will allow him to trace those operating the 'time scoop'. Later, Sarah sneaks in to photograph the dinosaur. It attacks her, then vanishes. The Doctor finds that the creature's restraining chains had been partly cut and his equipment sabotaged. UNIT has a traitor in its midst.

When the Doctor realises that enormous amounts of power are being used to bring the dinosaurs through time, Sarah visits Grover, a Government Minister who has information about nuclear generators. Unfortunately, Grover is part of the conspiracy and Sarah is captured and hypnotised. On waking, she finds herself apparently on a spaceship. She is told that the ship left Earth three months ago.

In the meantime, the Doctor has completed an energy detector which will lead him to the time scoop operators. He finds the entrance to their base, but is forced to flee when a Pterodactyl attacks him. He later returns with UNIT, but this time can find no trace of the entrance.

Whitaker, Butler, Grover and Finch - who is also a conspirator - are now preparing the final phase of their plan, but first the Doctor must be dealt with. Whitaker rings him, claiming to have broken from the group. The Doctor agrees to meet the scientist at an aircraft hangar, but finds only a strange piece of equipment. Suddenly a Steggosaurus appears, as do the Brigadier and Finch. Finch states the Doctor is a traitor and has him arrested.

As she still has bruises she received fleeing from the Tyrannosaurus, Sarah realises the 'spaceship' story is a deception. She tries to persuade the 'colonists' on board of this fact, but to no avail. She gets away via 'an airlock' and returns to UNIT. As everyone is out hunting the Doctor, who has escaped, she finds only Finch. Unaware that he is a traitor she allows him to take her back to the base, only to be imprisoned once more. She learns from Grover that his group plans to turn back time to a 'Golden Age' before progress and pollution, and repopulate Earth with the 'colonists'. Anyone outside the time field which covers central London will never have existed.

A new wave of dinosaur appearances is used to frighten off the few people remaining in London. The Doctor is fleeing from a Tyrannosaurus when he is captured by UNIT.

Sarah escapes the base and makes her way back onto the 'spaceship', where she convinces the 'colonists' of the truth. Yates, on orders, tries to arrest the Brigadier and the Doctor, but is overpowered. Now realising who the traitor really is, UNIT attacks Operation Golden Age. Whitaker operates the time machine but, unaffected, the Doctor is able to close it down again. When Whitaker and Grover make a last, desperate attempt to reactivate it, they succeed only in hurling themselves back through time.

(On 4 Shot 60) - 30 - 27.

(SARAH MOVES AS THOUGH TO OPEN THE DOOR AND ENTER THE FLIGHT DECK)

Tighten to MC 2-s as SARAH moves in.

MARK: You mustn't go in there!

SARAH: Why not?

MARK: It's forbidden. The controls are very delicate. When we arrive, the ship will land automatically.

SARAH: ..nd what happens then?

MARK: That's when our Golden Age will begin. Surely you know all this?

61. 2 F (on turn) LS SARAH/MARK coming t/w camera.

SARAH: My memory still isn't very clear. How will we live?

MARK: We'll make a settlement. We've got seed, tools, enough provisions to keep us going for a year.

4 move L. to B 1 to G

SARAH: What about these "simple, pastoral" inhabitants of the planet? How are they going to feel?

MARK: We shall help them. Guide them, make sure that they don't make the same mistakes that were made on Earth.

(1 Next) - 30 -

VL

(On 2 Shot 61) -31- 28.

SARAH: What mistakes?

MARK: There were so many. Factories and mines that destroy the landscape. Explosives of all kinds that kill and maim. Cars and aeroplanes that pollute the atmosphere.

62. 1 G (on turn) MCS SARAH/MARK

(RUTH AND ADAM ENTER.)

SARAH: What about medicine? .... education? ....

(SARAH PAUSES, TRYING TO THINK OF A THIRD GOOD THING ABOUT CIVILISATION, BUT CANNOT.)

63. 4 B MLS RUTH/ADAM coming from camera R. door. Pan them L.

RUTH: (VO) (AMUSED) Yes, indeed. What else? Compared with its evils, the benefits of technological civilisation are very few.

ADAM: Supermarkets, colour television, plastic cups. But what are they all worth?

64. 1 G MS SARAH

SARAH: They make life comfortable for a lot of people.

65. 2 F GROUP SARAH to ADAM.

ADAM: (NOT LISTENING) You see, we shall take the good, but leave the evil behind.

(1 Next) -31-

VL

(On 2 Shot 65) -32- 29.

SARAH: And you'll decide which is which?

66. 1 G MCS SARAH

ADAM: It's all so obvious.

SARAH: Don't you think people have a right to choose what kind of life they want?

67. 2 F MCS RUTH

S/B TK

RUTH: People on Earth were allowed to choose, and see what kind of a world they made. Moral degradation, permissiveness, usury, cheating, lying, cruelty.

68. 1 G MCS SARAH

SARAH: There's also a lot of love and kindness and honesty. You've got a warped view of things.

69. 2 F MC2-s RUTH/ADAM

(ADAM AND RUTH ARE TAKEN ABACK. THEY ARE NOT USED TO BEING DISAGREED WITH.)

70. 4 B MCS MARK

RUTH: You mustn't say such things.

(VO) SARAH: I'll say whatever I like.

MARK: The strain of re-awakening must have disturbed her mind.

71. 1 G MCS SARAH

SARAH: There's nothing wrong with my mind.

72. 4 B MC2-s RUTH/ADAM

1 PULL OUT

(2 Next) -32-

VL

(On 4 Shot 72) -33- 30.

Crab R. and pan ADAM L. to 2-s with SARAH.

ADAM: I was assured that everyone had been carefully selected. (TO SARAH) I don't think you're going to be very happy with us. If you feel like this, why did you join us?

SARAH: I didn't join you. I was brought here against my will.

73. 2 F MCS RUTH

RUTH: (TO ADAM AND MARK) We'll have to do something about this. She'll be a disruptive influence.

74. 4 B M2-s SARAH/ADAM. Ease to 3-s with RUTH as SARAH crosses R. Let them go and hold MARK behind.

ADAM: I think you'd better come with me.

SARAH: Where to?

RUTH TK

RUTH: You can't be allowed to go about saying these things. You'll have to be re-educated.

(THEY CLOSE IN ON HER)

75. TELECINE 6 Dur: 28" (16mm) (Originally T.K.7.) Ext. Underground Station. Day. S.O.F.

DOCTOR WHO and the BRIGADIER arrive in a jeep.

They stop and go into the underground, the BRIGADIER gun in hand.

2 to G Grover's Office B to 4 Reminder Room

END OF TELECINE 6: (Originally TK 7)

-33-

TAPE RUN ON

/ONTO PAGE 36A/31/ /SCENE 29, SHOT 76/

- 33 -

REPRODUCED BY ARRANGEMENT WITH BBC tv

STORY REVIEW

Paul Mount

On the face of it, 'Invasion of the Dinosaurs' should have been a very successful story. Doctor Who, the perennial 'children's' favourite from the '60s and '70s, locked in combat with towering malevolent dinosaurs - creatures which have infested the imaginations of small boys (and even some small girls) for generations. It could have been one of the most thrilling and exciting tales in the programme's eleven year history. But it had its own inbuilt self-destruct mechanism; its entire credibility depended upon the successful realisation of its prehistoric predators. Sadly, appalling modelwork turned the whole thing into an absolute disaster area.

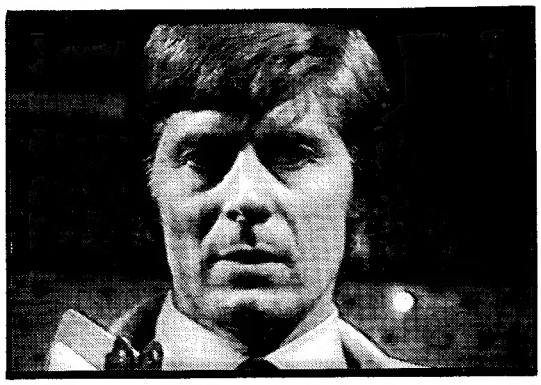
It's a shame, because the first episode starts off so promisingly. Deserted London streets, abandoned cars, overturned milkfloats, stray dogs; the chill picture of a lifeless city is stirringly evoked in a series of stark images. Into this sullen desolation appear the Doctor and Sarah, fresh from their rigours in medieval England. The scenario is a comfortably familiar one (for 'Doctor Who', at least); a terrible unnamed menace threatens Central London, looters are abroad in the streets, UNIT are maintaining a tenuous martial law. All remains well until a plastic Tyrannosaurus crashes its way through a toytown house and a savage clacking Pterodactyl on strings swoops down on the time travellers in a warehouse. The subsequent episodes serve only to confirm our worst fears. Diabolically-animated Tyrannosaurs stand about in painfully-obvious model streets and CSO Brontosaurs hover above the road bending their rubber necks. In short, one of the most interesting species ever to have existed on the Earth is reduced to a risible collection of pathetic puppets roaring ineffectually and moving with all the speed and grace of hyper-arthritic pensioners.

Not for one moment do these dinosaurs convince; some brief appearances are better than others, but none is ever really acceptable. Not even the show's most ardent supporters could defend sequences like the dinosaur fight in episode six, where a Brontosaurus puts its head into the mouth of a Tyrannosaurus before the two indulge in a fierce bout of erotic neck-kissing. Throughout the entire sorry affair dinosaurs stand and shriek, sliding backwards as if pulled by the tail by out-of-their-depth visual effects supervisors. Watching a captured monster struggle to right itself in a converted aircraft hanger where it has been chained is a tortuous, tormenting sight.

It's virtually unheard of for an entire 'Doctor Who' story to be totally ruined because of ineptly-executed special effects, but when the effects are as central to the proceedings as in this case, how can any other facet even hope to hold water? Thankfully though there are some points of interest which occasionally manage to take our minds (briefly) off the jaw-dropping ineptitude of the visuals.

'Invasion of the Dinosaurs' chips away at the friendly veneer of the Pertwee family UNIT. Some of the gloss has already been removed, of course. Jo has swanned off up the Amazon with a world-saving Welsh scientist, and the harsh realities of the real world have robbed the series of the Master. In 'Invasion of the Dinosaurs' yet more UNIT stalwarts seem to become somehow less reliable. Indeed the story is built on lies and deceit, duplicity and deception. Yates is the well-intentioned traitor who is invalided out of UNIT at the end of the story. Newcomer General Finch (John Bennett) is also a traitor, one of the 'masterminds' behind Operation Golden Age, and as he attempts to throw suspicion on anyone else in the vicinity Benton is twice threatened with a court martial, the Brigadier himself is briefly suspected of treachery and the Doctor is accused of being 'the monster-maker'. Perhaps the final irony is that after nearly five years of racing around being chased by Daleks, Ogrons, Axons, Sea Devils and the like, Pertwee's Doctor spends almost an entire episode (episode five) of his last even half-traditional Earth story in a well-staged chase sequence hotly pursued by UNIT's own troops. Who else could there really be for him to be chased by?

The plot and many of its mechanisms are typical Malcolm Hulke, liberally laced with some Letts/Dicks moralising. In some ways the story is something of a continuation of themes explored in 'The Green Death' (Serial "TTT"), but instead of the horrendous potential side-effects of pollution, here we witness the vain and somehow sad battle of a group who wish actually to halt the tide of pollution and depravity by rolling back Time to some theoretical 'Golden Age'. The Reminder Room aboard the fake spaceship is a direct lift from the entertainment console aboard the IMC ship in 'Colony in Space' (Serial "HHH"), even though its usage is rather pointedly reversed this time



around.

Hulke's characters are amongst the richest and most interesting he created for 'Doctor Who'. The villains of the piece are a low-key and mild-mannered bunch, frighteningly cool and collected in their determination. The bad guys - Professor Whitaker, Charles Grover, General Finch et al - aren't really bad guys at all in the usual sense, just men with a fervent belief that what they're doing is right and that Mankind's only hope of a future lies in erasing the past. They're not mad and they know it. Grover says: "My associates and I are the only ones who are sane." Yates remains continually concerned that his old friend the Doctor shouldn't be harmed in the course of his investigations, and the closest anyone ever gets to a threat is when Grover tells and imprisoned Sarah, "I hope that in the future we can be friends".

The most pathetic characters are the misled passengers aboard the fictitious spaceship travelling to 'New Earth'. Utterly convinced that the old planet is beyond redemption, they've been completely taken in by the charade around them and are full of hope for their new life on a new world. Ruth paints a rosy picture of a place "undefiled by the evil of Man's technology" away from the old Earth, a planet now characterised by "moral degradation, permissiveness, usuary, cheating, lying, cruelty." But just to redress the balance, the Doctor is always on hand. "Take the world you've got and try to make something of it," he advises Mike Yates, just uncovered as (another) traitor. Later the Doctor takes time out to warn the Brigadier, the viewers and anyone else who might be listening, that the Earth is in imminent danger of becoming "one vast garbage-dump inhabited only by rats."

Everyone in 'Invasion of the Dinosaurs' seems to represent a wild extreme. The fanatics crave a better future in the past, the Doctor sagely informs them that "there never was a Golden Age". The Brigadier and UNIT are mainly concerned with the terrifying monsters; so it falls to Sarah Jane Smith to stand in the middle of it all and give an unbiased view. She tells the spaceship travellers that they've got "a warped view of things" and she has little time for Mike Yates' romantic dream of a London uncluttered by the presence of Man and his trappings. Not only is Sarah the voice of human reason, expressing our own feelings amidst this madness, but she is also, unfortunately, the stereotyped mid-'70s career woman. Her femininity is underplayed by her trouser-suits, her leather jackets and her ferocious, precocious nature. She constantly complains about being left out of the action, treated as an outsider, but when she does involve herself she inevitably ends up blundering into dire situations that require the Doctor to rescue her. At this point Sarah is still too much of an over-hysterical reaction to the helpless image of Jo Grant, and she ends up coming across as even more inept than her worthy predecessor.

So to the Doctor himself, now in his twilight with Jon Pertwee. In this familiar UNIT setting it's easy to see how he has changed and softened since his first or even second season. He's no longer the terse, sharp-mouthed alien, his waistline has visibly thickened, his hair has grown whiter and he's matured into a cuddly uncle, a man we don't fear or suspect but someone in whose presence we feel completely safe, even in the most perilous of situations. He still retains his sharp scientific mind, though. "My apparatus has been messed about with!" he announces in episode three, and the image of the Doctor putting together his dinosaur neutralising gun whilst all about him are interrupting is typical Pertwee. With a flash of his old arrogance he calmly tells the Brigadier "I'm never wrong" as they attempt to infiltrate the secret underground bunker which is the centre of all the intrigue. 'Invasion of the Dinosaurs' also marks the debut of Pertwee's beloved flying-saucer-like Whomobile, a machine which now looks not only totally impractical but also frankly ludicrous. I'm inclined to agree with the Brigadier, who declares "It'll never get off the ground." If only he'd known what was in store a little later!

'Invasion of the Dinosaurs' has a lot going for it. Its plot is smooth and uncontrived, possessed of only a little of the naivety that was often Malcolm Hulke's trademark. But the twists and turns and foibles of the story come to nothing under the weight of its visual inadequacy. It was a story that was clearly beyond the bounds of the BBC's technical capabilities, and the fact that they persisted in going ahead with it anyway must sadly go against them rather than be held to their credit. All things considered, 'Invasion of the Dinosaurs' was a mistake that should never have been allowed to happen.

SPACE & TIME

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SPACE & TIME

PRODUCTION OFFICE

Jeremy Bentham

The first breezes of an ultimately strong wind of change blew over the production history of 'Invasion of the Dinosaurs' - a technically very ambitious story. Although viewers would see it as the second story of the eleventh season, for Barry Letts and Terrance Dicks it was the first serial to enter production of the latest 26 episode, nine month recording block allocated to them by BBC departmental chiefs. And this year, in particular, there was acute pressure from above to continue the strong ratings and high public profile achieved by 'Doctor Who' during the 1972/73 season.

In many ways, the success of that tenth anniversary season had been a peak for the four year old Letts/Dicks partnership. A lot of hard work had gone not only into the TV production of 'Doctor Who' but also into the peripheral areas of selling and advertising the ten year old programme. But having attained that summit, their feelings ran very much along the lines of, "Where do we go from here? What more is there to do?"

There were doubts as well. Katy Manning, a very identifiable member of the 'Doctor Who' 'family', had gone, and the tragic death of Roger Delgado still cast a shadow of great loss over the entire team. Additionally, Letts' and Dicks' own science-fiction series 'Moonbase 3' (see 'The Time Warrior' (Serial "UUU") had not proved a great success with the viewing public.

Terrance Dicks was the first to break ranks by formally announcing his intention to quit the series at the end of the eleventh season. His tenure as Script Editor had been by far the longest in the show's history, and he believed that there was little more he could add creatively. The lure of a return to freelance writing was proving harder each day to resist, and his new-found contacts in publishing (see 'Season 10 Special' release) boded well for a move into the potentially lucrative area of book sales.

While it was far from being established procedure, a 'Doctor Who' tradition had grown up since the days of David Whitaker and Dennis Spooner for the outgoing Script Editor at least to nominate his successor. With full backing from Barry Letts, Terrance Dicks proposed the person he felt to be the obvious choice for the job, Robert Holmes.

In Dicks' eyes, Holmes was the star pupil he had coached and encouraged since the days of his unsolicited manuscript for 'The Krotons' (Serial "WW"). Dicks observed, with some justifiable pride, the increasing sophistication and style brought forth in each new script, plus the author's obvious affection for the programme. What more natural, then, than for the graduate to become a teacher?

At first Robert Holmes was doubtful about the idea considering himself a writer in isolation rather than a gregarious organiser and motivator of men. But, after a series of lunchtime meetings, the opportunity proved too much of a temptation to resist.

As Holmes was a total newcomer to the mechanics of script editing, it was agreed that he should 'trail' Terrance Dicks for the best part of a whole season to get the feel of the job, commencing on the latter episodes of 'Invasion of the Dinosaurs'.

Malcolm Hulke was chosen to write this season opener partly because he lived quite close to Terrance Dicks. At the time the story was commissioned, Dicks was still heavily involved with 'Moonbase 3' and therefore needed a writer close at hand with whom he could work, if necessary, at weekends and during the evenings.

As with many stories of this period, the idea and the overall shape of 'Invasion of the Dinosaurs' were the inspiration of the Production Office. Having worked as Director on 'Carnival of Monsters' (Serial "PPP"), Barry Letts remembered being very impressed by the shot of the Drashig bursting through the ship's deck hatch, with Major Daly in the foreground blazing away with a machine gun. That one, short sequence had been a skilful blending of model puppeteering, CSO, film and a caption slide, all made possible and visually convincing by recent technical upgrades at TV Centre. The effectiveness of that sequence convinced Letts that it would be possible to fulfil his long-cherished wish to match the Doctor against prehistoric dinosaurs in a visual spectacle akin to the movie work of Ray Harryhausen.

The first notion was to take the Doctor back in time to the era of the dinosaurs, but Terrance Dicks suggested turning the concept on its head and having the dinosaurs at large in modern-day London. To do this would mean a much more technically demanding shooting schedule, but by careful budgeting of the season as a whole, Letts reckoned the show could afford the extra 'gallery only' days in the studio to mix the special effects footage. This in turn was made possible only by virtue of the fact that this was the first serial of the new recording block, and hence free of the back-to-back production schedules faced by the subsequent stories.

Ideally Barry Letts would have preferred to direct this story himself, but the pressures of 'Moonbase 3' coupled with the work of blocking out the rest of the eleventh season precluded his exercising that option. He therefore invited experienced BBC staff director Paddy (Patricia) Russell to undertake the task, in the belief that she would have a greater understanding of the technical resources and facilities to hand than would a freelancer.

As things transpired, work on 'Invasion of the Dinosaurs' was completed only a month or so before the season got under way on TV with the first episode of the story left over from the previous year's recording cycle, 'The Time Warrior'. In a bid to steal and retain audiences over the critical Christmas period, BBC Programme Planning chose to start 'Doctor Who' ahead of the festive season, capitalising on the free advertising it had gained through high sales of the 'Radio Times Special' (see 'Season 10 Special' release), and promotional plugs on the popular 'Nationwide' and 'Blue Peter' programmes.

The biggest of these plugs had been on November 8th, when nearly half of that day's 'Blue Peter' had been devoted to a ten year retrospective of 'Doctor Who', including clips from 'The Tribe of Gum' (Serial "A"), 'The Daleks' Master Plan' (Serial "V"), 'The Tenth Planet' (Serial "DD"), 'The War Games' (Serial "ZZ") and 'The Three Doctors' (Serial "RRR"). Present in the studio was Jon Pertwee, who whetted the audience's appetite for the new season with a sneak preview of the Doctor's latest gadget, the Whomobile (see page "71-11").

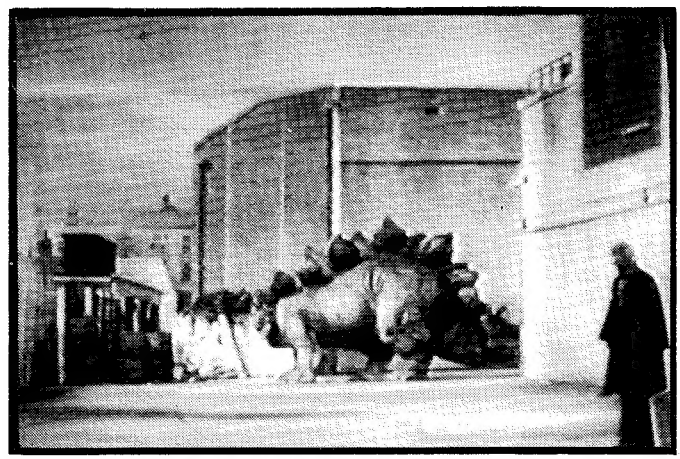
DINOSAURS IN THE HIGHSTREET

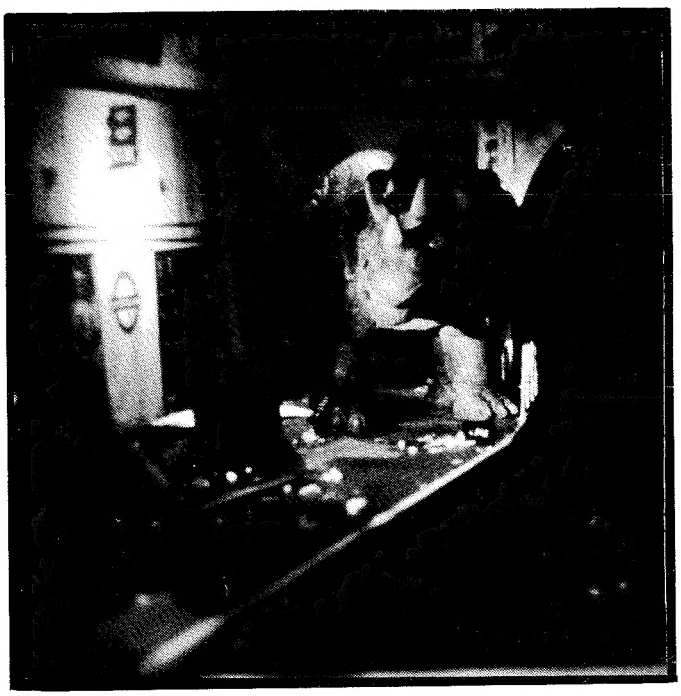
Trevor Wayne

Dinosaur. Although the term is no longer, strictly speaking, in scientific use, its swift passage into popular vocabulary and the host of images (mostly erroneous) conjured up by it, ensure its longevity. Children in particular seem to hold these long-dead beasts close to their hearts and imaginations, which is possibly why a great many people dismiss any interest in them as 'childish' when they themselves 'grow up'. It is the convoluted Latin/Greek names that apparently provide much of the pleasure. Supple young tongues love to enunciate these long words that many adults have forgotten or somehow never bothered to learn. In 'Invasion of the Dinosaurs', some of the Brigadier's troops display this average adult discomfort with names such as Stegosaurus (although that is a very popular and comparatively easy one!).

Conan-Doyle's 'The Lost World' (1912) was one of the earliest works of fiction to suggest that dinosaurs could have survived to modern times. The original (1925) cinema version concludes with a Brontosaurus (another obsolete name, but so popular - for many people this animal is the dinosaur - it is likely to remain in common usage) escaping from its captors and rampaging through London. The 1950s saw a whole succession of films where revived, supposed, prehistoric animals went on an orgy of destruction in modern cities with Tokyo, perpetual victim of Gojira (Godzilla) and his contemporaries, being subjected to almost constant 're-development' of this nature. Thus the inspiration of the key imagery of this 'Doctor Who' story and perhaps of the panic experienced by Londoners as the tale progresses is not too hard to find.

As they are extinct and those with the most cinematic/televisual qualities are the very largest of their number, it is not easy to get dinosaurs to perform. The stop-action animation technique originated by Willis O'Brien and his protege Ray Harryhausen was used to remarkable effect in the 1925 'The Lost World' and later in the 1964 'One Million Years B.C.' (No prizes will be awarded for those spotting any of the many scientific howlers in that film!) The process is however very time-consuming (shooting one frame at a time) and as time is money, Hammer - who produced the latter film - were a little disturbed. For their next prehistoric venture, 'When Dinosaurs Ruled the Earth', they turned to Jim Danforth and Roger Dicken to provide the dinosaurs. Although many consider their efforts to be the acme of this kind of work, and they were nominated for one of the 1970 Oscars for it, they took even longer. Thus when 'Creatures the World Forgot' reached the cinema screens the following year, the dinosaurs were 'forgotten' altogether, which made the film more accurate but much less interesting.





A 'Doctor Who' serial would not even stretch to a modest Hammer film budget, and the time constraints are much tighter, so it is perhaps not surprising if the dinosaurs did not turn out to be quite as convincing as some of their film-star cousins. One or two memorable images were created, however: the anachronistic Triceratops at the Tube station and the unusual sleeping Tyrannosaurus Rex are the two that spring most immediately to mind.

Despite the title of the serial, it did not involve, in the strictest sense of the word, an invasion; the dinosaur apparitions were generally brief and there was no attempt on their part to establish themselves in the contemporary setting. They were as much victims of the Timescoop and its operators as the people of London. Indeed the dinosaurs themselves were almost incidental to the main plot of the story, included to provide a guaranteed 'hook' and following the success of Mac Hulke's earlier stories with a prehistoric connexion: 'Doctor Who and the Silurians' (Serial "BBB") and 'The Sea Devils' (Serial "LLL"). UNIT did not seem to be getting anywhere simply plotting the creatures' appearances; even without the Doctor, it is surprising that they did not find a paleontologist and a biologist who would have been only too pleased at the chance to study living dinosaurs and perhaps film them. And why didn't the Doctor at least take a blood sample from the Tyrannosaurus he captured?

Could it really happen? Of course not. Dinosaurs live on in our imaginations but not in actuality; or do they? New work carried out on dinosaur physiology in the early Seventies has led to a reappraisal of these beasts; one theory holds that some of the creatures we call dinosaurs are related to birds (not the flying reptiles, however). So today's birds may be the living descendants of the once-mighty dinosaurs. A sobering thought for anyone walking across London's Trafalgar Square.

MALCOLM HULKE

Gary Hopkins

'The Hidden Planet' is probably the most famous 'Doctor Who' story that didn't happen. Slated for production early in 1964, Malcolm Hulke's intelligent concept of Earth's mirror image was dropped with the arrival of the Daleks and schlock science-fiction. As a professional writer, Hulke was understandably miffed by this turn of events, but - being no stranger to the vagaries of TV producers - he could readily appreciate the logic behind the decision.

By that time in 1964 Malcolm Hulke ('Mac', as he preferred to be known) had established a reputation for himself as a fine dramatist, both for TV and radio. He began his writing career towards the end of the 1960s and, together with Eric Paice, was later responsible for the 'Pathfinders' series of space adventures. Mac had also worked on 'The Avengers' - devised by 'Pathfinders' producer Sydney Newman - and was therefore eminently qualified to lay some of the foundation stones for 'Doctor Who'. The fact that 'The Hidden Planet' was shelved because of a policy change is now ancient history, but one is left to ponder how closely Mac's first script for 'Doctor Who' would have resembled his later ones. Would it have betrayed his cynical regard for petty bureaucracy? Would it have shown all his qualities as one of the best story-tellers in the business? Undoubtedly, I think, the answers to the those questions would be yes.

Following the demise of 'The Hidden Planet', Mac became involved with a new TV soap opera called 'Crossroads', and devoted much of his time to revamping 'The Avengers' format just prior to the arrival of Diana Rigg's Emma Peel. 'The Avengers' producer Brian Clemens had always expressed a desire to write for 'Doctor Who', and would certainly have approved of Mac's second attempt to enter the TARDIS in a story called 'The Chameleons', which he co-wrote with David Ellis. But if 'The Hidden Planet' was an inauspicious start to Mac's 'Doctor Who' years, 'The Chameleons' could hardly have been an easy ride. Beset by production problems and massive rewrites, the show finally reached the screen as 'The Faceless Ones'. Despite its problems, though, Mac remembered that story with a great deal of fondness, and was particularly pleased by what he described as the 'intrigue' of the whole adventure - the labyrinthine twists and turns that would have done justice to a typical 'The Avengers' plot.

'Doctor Who' was never closer to the style of British soap opera than in the late 1960s, when it appeared on screen for almost fifty-two weeks of the year. Both Mac and his co-writer Terrance Dicks had worked on 'Cross-

roads', and were prepared for the on-going saga of 'The War Games' to round off the adventures starring Patrick Troughton. But what would have worked well in six episodes - its original length - lost much of its impact in ten, a fact which both Mac and Terrance Dicks have freely admitted. The epic sweep of 'The War Games' was certainly a marathon task in terms of writing, and Terrance Dicks concedes that much of the credit for the speed and efficiency with which those scripts were written should go to Mac and his trusty typewriter.

The same speed and efficiency served the 'Doctor Who' production team well during the first chaotic months of Jon Pertwee's Doctor. As always in television, time was of the essence. Perhaps the most demanding form of TV drama is soap opera, which requires maximum output in minimum time to meet the voracious appetites of soap viewers and the phenomenal turnover in production. So it's no coincidence that all four writers commissioned to work on the new Doctor's opening season were hardened soap veterans. Ironically, though, David Whitaker's 'The Ambassadors of Death' scripts went through several rewrites before they were deemed suitable for production. But by then Whitaker had been 'paid off' and Mac had provided the polished, final draft.

That, in addition to his own epic-length 'Doctor Who

and the Silurians', meant that Mac was tied up with 'Doctor Who' for the best part of a year, and played almost as large a part in the development of the format as script editor Terrance Dicks and producer Barry Letts. Both 'Doctor Who and the Silurians' and 'The Ambassadors of Death' have been criticised for stretching fairly thin plots beyond their natural length - particularly in the case of the latter story - but their strengths (as in most of Mac's work) lay in the attention to character detail and excellent plot structure. They showed that, in the hands of a skilled writer, even the weakest of plots can pass muster.

Mac's ability to write quickly, effectively and imaginatively led to four more 'Doctor Who' commissions in the space of four years. Of these, 'The Sea Devils' is perhaps the most memorable and successful, combining as it did the best of 'Doctor Who' with the highest production standards affordable at that time by the BBC. 'Frontier in Space' is remembered for its lavish treatment of 'space opera', and was Mac's particular favourite because of the freedom it allowed him to explore the relationships ('politics') between different cultures and species. Whereas in earlier adventures he had considered the bonds and divisions of Man and monster, here he was able to confront Man with Man-like - and vice versa. Man, according to Mac, was always seen as the greater threat to peace and harmony.

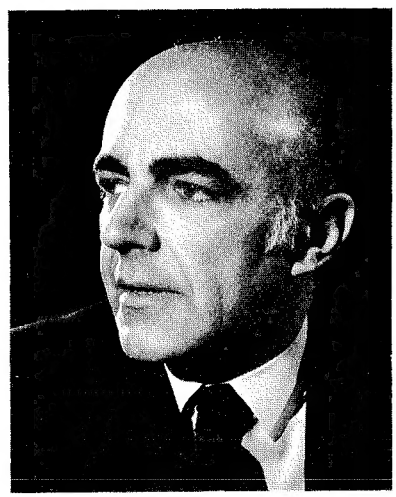
'Colony in Space' is commonly held to be Mac's least successful - but no less imaginative - script for 'Doctor Who'. A smaller budget and a thinner plot resulted in a great deal of aimless running about endless corridors and tacky-looking sets. The ideas and messages behind the story were strong, but ultimately failed to rescue the serial from its shortcomings. A similar fate has consigned 'Invasion of the Dinosaurs' to a dark corner of 'Doctor Who' mythology, despite its strengths in terms of character and message. Once again the story was a victim of limited special effects - much to the disappointment of all involved - and lost its way somewhere in the middle. In many ways, though, it can be said to represent the best and the worst of Malcolm Hulke's 'Doctor Who' stories during his ten years of involvement with the show on TV.

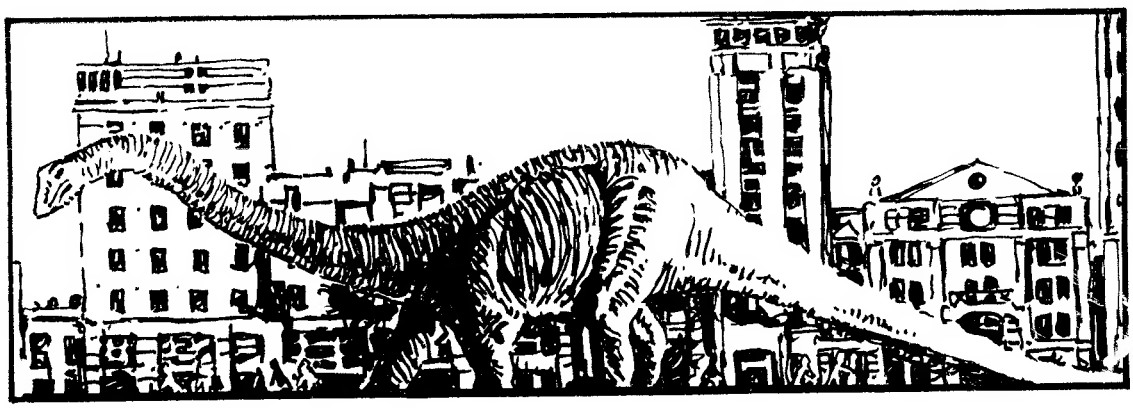
At the time of his death in 1979, Mac was revising his highly successful book 'Writing for Television', in which he shares much of his experience as a writer and conveys some of the tremendous warmth and humour for which he will always be remembered.

To read that book is to know Malcolm Hulke.

"Looking at my last serial, 'Invasion of the Dinosaurs', that was very political...What they said to me was that the Special Effects Department had found that if we liked we could show monsters wandering around contemporary London by various forms of trickery. So could I think of some reason why dinosaurs and so on might be wandering around contemporary London. I decided what I wanted to do, and so you've got these people who have this lovely idea of 'The Golden Age', but sometimes people with very good, altruistic ideas can overlook the main issue. That's really what the message was behind that one. But remember what politics refers to. It refers to 'the relationship between groups of people'. It doesn't necessarily mean Left or Right of Conservative or Labour or whatever, it's the relationship of groups of people, so really almost all the 'Doctor Who' stories are political. Even though the other people look like reptiles, they're still people. I'd say it's a very political show."

Malcolm Hulke, quoted in 'The Doctor Who Review', 1979





TECHNICAL NOTES

Jeremy Bentham

Jon Pertwee's personal contribution to 'Invasion of the Dinosaurs' was 'The Alien', a custom car designed and built for him by specialist Peter Farries of Nottingham. The two had met back in January 1973 as separately invited guests to a car dealership opening. A fanatic for anything with an engine, Pertwee had expressed great admiration for Farries' own custom vehicle, 'The Black Widow', and on the spur of the moment asked about the possibility of having a car designed suitable for him, as the actor playing the lead in 'Doctor Who', to be seen driving. There and then Farries had sketched the basic outline of 'The Alien', and within weeks Pertwee had given him a formal commission to build the vehicle.

'The Alien's' construction was based on a 'Bond Bug' chassis surmounted by a Hillman Imp 975cc engine. The three wheels (two for transmission and one for steering) were hidden behind a rubber skirt, designed to give the illusion of the car being a hovercraft. The biggest headache Farries had to overcome, and the reason why the vehicle took so long to complete, was the difficulty of building the bodyshell. To resist the stress caused by its sheer weight of fibreglass, the superstructure had to be cast as one single component, and this meant making a mould big enough to achieve that not inconsiderable feat. Somehow Farries managed what many designers considered impossible, and once it was sanded down, painted and lacquered, the shell needed only kitting out with its many brake, turning and head-lights before it could be fitted to the chassis.

The car was only partially finished when Jon Pertwee elected to show it off to his fellow cast and crew members, at the first read-through of the 'Invasion of the Dinosaurs' script. Quickly acquiring a new nickname, 'The Whomobile', it was promised a debut appearance in the story after a quick script revision was agreed to episode four.

The inaugural 'flight' of 'The Whomobile' (which, incidentally, was never called by that name in the series itself) was almost the first scene to be filmed for this serial. For the all-important scenes showing a recognisable London totally deserted, Paddy Russell scheduled an early Sunday morning shoot in the heart of the city, arranging to film around the closed Smithfield meat market and one of the entrances to Moorgate Underground station. True to form, London Transport would not allow the unit to film inside its premises without payment of a substantial fee (see 'The Web of Fear' (Serial "QQ")).

At the time of shooting, in late September 1973, 'The Whomobile' was still incomplete, being without a roof or any windscreens. So to meet the urgency of the filming schedule, Farries quickly grafted on a makeshift motorboat windscreen, sufficient to make the car legally roadworthy.

The remainder of the filming, which was so critical in terms of crowd control, was done in and around Chiswick in West London, taking in a park, a deserted industrial estate, warehouses, a shopping parade and several suburban streets. One scene filmed but later cut from the finished story was an opening sequence of a looter stealing from a dead milkman's money pouch, hearing a roar above him, looking upwards and then being cut down by a blow from an unseen monster.

'Baptys', the film industry's armourers, as usual supplied the jeeps and rifles required for the production. The budget would not, however, support the hiring of a helicopter for the chase scenes in episode five, so Paddy Russell compensated by cleverly editing in stock footage from the Army of their helicopter display team in action.

The biggest budget overheads on this story were the dinosaurs, and so a sizeable amount of money was allocated to Visual Effects Designer Clifford Culley to build, animate and film the five reptile models required; namely an Apatosaurus, a Tyrannosaurus Rex, a Stegosaurus, a Triceratops and a Pterodactyl.

Pressures of time and money ruled out constructing the full, tabletop-sized dinosaur models from ball-and-socket armatures and then animating them using stop-motion filming, as is often done for the cinema. Instead, since the Drashigs in 'Carnival of Monsters' (Serial "PPP") were the inspirational prototype, the creatures were rod- and cable-controlled puppets, with foam latex bodies formed over wire frames. Unlike the Drashigs, however, the job of actually making the dinosaurs and handling the filming of the models was farmed out to an external, freelance effects company.

No two puppets were built to exactly the same design, as each was required to perform a different function. The Pterodactyl was hung and 'flown' on three wires to give its wings some movement, the Apatosaurus had a vertically articulating neck, while the main features of the Tyrannosaurus were a flexible jaw and moving eyes. An additional, larger version of the Tyrannosaurus head was built for close-up shots and for the hangar sequence where it bursts through the wall. The BBC's Costume Department made the glove puppet of the Pterodactyl head, used to attack the Doctor in episodes one and four.

The models were lensed either on their own, predominantly two-dimensional sets (i.e. photographic wall fascias rather than full, scale model buildings), or against yellow backdrops for CSO work. Most of the completed dinosaur sequences were finally assembled only in the studio, the composite pictures comprising mixtures of film (the model sets), video effects (the 'time eddy' caption slide), live action recording (actors reacting to the monsters) and Inlay masking (combining all these elements, hopefully without the joins showing).

Three blocks of studio recording were needed to put this story in the can: October 15th/16th in TC6; October 29th/30th in TC8; and November 12th/13th in TC3. One further studio day was scheduled for the sole purpose of shooting the above mentioned gallery-controlled effects work - the first time in the show's history that this had been done.

Another oddity in connection with this serial was the regional splitting of its transmission dates. All the UK saw the serial in its normal Saturday slot except for BBC Wales, which decided to air a folk music programme in its place. 'Doctor Who' was switched to Sundays or else to a mid-week slot for several weeks during this season.

Although widely advertised in the 'Radio Times Special' as 'Invasion of the Dinosaurs', episode one of the story was broadcast with the abbreviated title 'Invasion', the idea being to preserve the mystery of London's desertion. This led to its colour master tapes and negatives being accidentally destroyed when Pamela Nash of the BBC's Film and VT Library signed the order to junk the masters for the Patrick Troughton story 'The Invasion' (Serial "VV") shortly afterwards - a fact which meant that, unlike other Pertwee stories, 'Invasion of the Dinosaurs' could not be sold abroad.

PRODUCTION CREDITS

Stephen James Walker

SERIAL "WWW" — COLOUR

PART 1	Duration 25' 29"	12th. January 1974
PART 2	Duration 24' 43"	19th. January 1974
PART 3	Duration 23' 26"	26th. January 1974
PART 4	Duration 23' 33"	2nd. February 1974
PART 5	Duration 24' 38"	9th. February 1974
PART 6	Duration 25' 34"	16th. February 1974

CAST

STARRING:

Doctor Who.....Jon Pertwee
Sarah Jane Smith.....Elisabeth Sladen

FEATURING:

Brigadier Lethbridge-Stewart.....Nicholas Courtney
Captain Mike Yates.....Richard Franklin
Sergeant Benton.....John Levene
General Finch.....John Bennett
Butler.....Martin Jarvis
Professor Whitaker.....Peter Miles
Charles Grover.....Noel Johnson

WITH:

Lieutenant Shears.....Ben Aris
Corporal Norton.....Martin Taylor
Sergeant Duffy.....Dave Carter
Phillips.....Gordon Reid
Private Ogden.....George Bryson
First Warehouse Looter.....Terry Walsh
Lodge.....Trevor Lawrence
UNIT R/T Soldier.....John Caesar
UNIT Soldiers.....Brian Nolan
Geoff Witherick
Dennis Plenty, David Billa
Ian Elliott, Louis Souchez
Leslie Bates, John Cash
James Muir
UNIT Soldier (typist).....Richard King
Despatch Rider.....Ken Tracey
Army Soldiers.....Ronald Gough
Pat Milner, Steve Ismay
Roy Pearce, Cy Town
Ian Elliott, Kelly Varney
Nigel Winder, Tim Blackstone
Kevin Moran
Photographer.....Stuart Myers
Second Warehouse Looter.....Alan Bull
Milk Float Looter.....Leslie Noyes
Army Corporals.....Leslie Bates
Mike Stevens
Army Drivers.....Ted Heath, Bruce Cox
Colin Hamilton, Robin Dixon
Peasant.....James Marcus
UNIT Corporal.....Pat Gorman
Mark.....Terence Wilton
Adam.....Brian Badcoe
Ruth.....Carmen Silvera
Private Bryson.....Colin Bell
Robinson.....Timothy Craven
Golden Age Men.....Barry Summerford
Ken Tracey, Rory O'Connor
Geoff Brighty
Golden Age Women.....Judy Rodger
Annette Peters, Lyn Howard
Voice.....Peter Miles
Extra.....Peter Dukes
Secretary to Grover.....Peter Miles

TECHNICAL CREDITS

Production Assistant.....George Gallaccio
Assistant Floor Manager.....John Wilcox
Director's Assistant.....Brenda Loader
Technical Manager 1.....Alan Horne
Technical Manager 2.....Terry Wild
Sound Supervisor.....Trevor Webster
Grams Operators.....Gordon Phillipson
Mike Pinchin
Crew.....No. 18
Senior Cameraman.....Colin Reid
Vision Mixer.....Michael Turner
Floor Assistant.....Malcolm Hamilton
Film Cameraman.....Keith Hopper
Film Sound.....Andrew Boulton
Film Editor.....Robert Rymer
Visual Effects.....Clifford Culley
Stuntman.....Terry Walsh
Inlay Operators.....Phil Nixon
Alan Holey
Back Projection Operator.....Len Thurlow
Costumes.....Barbara Kidd
Make-up.....Jean McMillan
Incidental Music.....Dudley Simpson
Special Sound.....Dick Mills
Script Editors.....Terrance Dicks
Robert Holmes
Designer.....Richard Morris
Producer.....Barry Letts

DIRECTOR:

PADDY RUSSELL

BBCtv 1974